Abstract

This invention provides novel peptides that function in vivo to stimulate insulin release from pancreatic beta cells in a glucose-dependent fashion. These insulin secretagogue peptides are shown to stimulate insulin release in rat islet cells in vitro, and in vivo. The peptides of the present invention provide a new therapy for patients with decreased endogenous insulin secretion, in particular type 2 diabetics. In particular, the invention is a polypeptide selected from a specific group of VIP/PACAP-related polypeptides, or functional equivalents thereof. The invention is also directed to a method of treating a metabolic disease in a mammal comprising administering a therapeutically effective amount of the insulin secretagogue peptides to said mammal. Also disclosed are methods of making the peptides, both recombinant and synthetic.